IN THE CLAIMS:

115. (Previously amended) In a method of transmitting message from a sender to a destination address through a server displaced from the destination address and of authenticating the message, the steps at the server of:

receiving the message from the sender,

transmitting the message to the destination address,

receiving at the server an indication from the destination address that the message has been received at the destination address from the server,

maintaining the message in its original form and additionally providing a digital signature of the message in the original form of the message, and

transmitting to the sender the message in its original form, and the digital signature of the message in the original form of the message, for storage by the sender.

116. (Previously amended) In a method as set forth in claim 115, the step at the server of:

discarding the message and the digital signature of the message after the transmission of the message and the digital signature of the message to the sender and before any authentication of the message.

117. (Previously amended) In a method as set forth in claim 116, the steps at the server of:

receiving from the sender a copy of the message and the digital signature of the message before any authentication of the message, but after the transmission of the message to the destination address,

generating digital fingerprints of the message, and the digital signature of the message, received from the sender,

comparing the digital fingerprints, and

authenticating the message on the basis of the results of the comparison.

118. (Previously amended) In a method as set forth in claim 116, the steps at the server of:

providing at the server an attachment including the identity of the sender and the identity and address of the server and the identity and the destination address of a recipient,

maintaining the attachment in the original form and additionally providing a digital signature of the attachment in the original form of the attachment, and

transmitting to the sender the attachment in the original form of the attachment, and the digital signature of the attachment in the original form of the attachment, for storage by the sender transmitting to the sender the attachment and the digital signature of the attachment, at the same time as the transmission of the message, and the digital signature of the message, to the sender.

119. (Previously amended) In a method as set forth in claim 115, the steps at the server of:

receiving an attachment from the destination address,

maintaining the attachment in its original form and additionally providing a digital signature of the attachment in the original form of the attachment, and

transmitting to the sender the attachment in the original form of the attachment, and the digital signature of the attachment in the original form of the attachment, for storage by the sender.

120. (Currently amended) In a method as set forth in claim 11[[~~5~~]][[9]], the steps at the server of:

receiving from the sender copies of the message and the attachment and the digital signatures of the message and the attachment,

generating digital fingerprints of the message and the digital signature of the message and digital fingerprints of the attachment and the digital signature of the attachment, and

comparing the digital fingerprints of the message and of the digital signature of the message, and comparing the digital fingerprints of the attachment and the digital signature of the attachment, to authenticate the message and the attachment.

121. (Previously amended) In a method as set forth in claim 119, the steps at the server of:

receiving the message$_1$ and the digital signature of the message$_1$ at the server from the sender, and

authenticating the message at the server on the basis of the message, and the digital signature of the message, received by the server from the sender.

145. (Previously amended) A method of transmitting message from a sender to a destination address for a recipient through a server displaced from the destination address and of authenticating the message, including the steps at the server of,

receiving the message from the sender,

transmitting the message to the destination address through a path including servers between the server and the destination address, and

transmitting to the sender the message and the path of transmission of the message between the server and the destination address.

146. (Previously amended) A method as set forth in claim 145 wherein

the server receives from the sender the message and the path of transmission of the message between the server and the destination address and wherein

the server authenticates the message on the basis of the message and the path of transmission of the message between the server and the destination address.

147. (Previously amended) A method as set forth in claim 145 wherein

the server does not retain the message and the path of transmission of the message between the server and the destination address after it transmits to the sender the

message, and the path of transmission of the message, before any authentication of the message.

148. (Previously amended) A method as set forth in claim 145 wherein the destination address is one of a plurality of destination addresses receiving the message from the server and wherein

the server distinguishes each of the destination addresses in the plurality in the transmission of the message to the destination addresses in the plurality.

149. (Previously amended) A method as set forth in claim 145 wherein

the path of transmission of the message between the server and the destination address includes the identity and address of the server and the identity of the recipient at the destination address.

150. (Currently amended) A method as set forth in claim 146 wherein

the server does not retain the message and the path of the transmission of the message between the server and the destination address after it transmits to the sender the message, and the path of transmission of the message between the server and the destination address, before any authentication of the message and wherein

the destination address is one of a plurality of destination addresses receiving the message from the server and wherein

the server distinguishes each of the destination addresses in the plurality in the transmission of the ~~unencrypted~~ messages to the destination addresses in the plurality, and wherein

the message has an attachment and wherein

the attachment identifies the path of transmission of the messages between the server and the destination addresses.

159. (Previously amended) A method of providing a delivery at a server of an electronic message from the server to a destination address and of authenticating the electronic message, including the steps at the server of:

receiving at the server the electronic message from a sender for transmission by the server to the destination address,

transmitting the electronic message from the server to the destination address via a protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol, and

receiving at the server the transmission of the electronic message between the server and the destination address via the selected one of the SMTP and ESMTP protocols.

160. (Previously amended) A method as set forth in claim 159, including the step at the server of:

including, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the identity of the sender, the identity and address of the server and the destination address.

161. (Currently amended) A method as set forth in claim 159, including the steps at the server[[-]]of:

providing a transmission of the electronic message from the server to the sender,

including, in the transmission of the message from the server to the sender, additionally a digital signature of the electronic message.

162. (Previously amended) A method as set forth in claim 159, including the step at the server of:

recording, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the time for the transmission of the electronic message from the server to the destination address and the time for the reception of the electronic message at the destination address.

163. (Previously amended) A method as set forth in claim 160, including the steps at the server of:

including, in the transmission of the electronic message between the server and the sender via the selected one of the SMTP and ESMTP protocols, a digital signature of the electronic message, and

recording, in the transmission between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the time for the transmission of the electronic message from the server to the destination address and the time for the reception of the electronic message at the destination address.

164. (Previously amended) A method as set forth in claim 159, including the step at the server of:

including, in the transmission of the electronic message between the server and the destination address via the selected one of the SMTP and ESMTP protocols, the status of the delivery of the electronic message at the destination address from the server.

165. (Previously amended) A method as set forth in claim 159, including the step at the server of:

receiving at the server a delivery status notification relating to the status of the delivery of the electronic message at the destination address and the delivery of the electronic message from the destination address to a recipient.

166. (Previously amended) In a method of verifying at a first server a delivery of an electronic message to a destination server for a recipient, the steps at the first server of:

transmitting the electronic message from the first server to the destination server via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

receiving, at the first server from the destination server, the transmission between the first server and the destination server of the electronic message via the selected one of the SMTP and ESMTP protocols, and

transmitting from the first server to the sender the electronic message and the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols.

167. (Currently amended) In a method as set forth in claim 166, the step at the first server of:

transmitting from the first server to the sender the electronic message at the time of the completion of the transmission of the electronic message between the first server and the destination server via the selected one of the SMTP and ESMTP protocols.

168. (Previously amended) In a method as set forth in claim 166, the step at the first server of:

discarding the electronic message at the first server after the transmission of the electronic message via the selected one of the SMTP and ESMTP protocols by the first server to the sender.

169. (Previously amended) In a method as set forth in claim 166, the steps at the first server of:

maintaining the electronic message at the first server and additionally providing at the first server a digital signature of the electronic, and

transmitting the digital signature of the electronic message from the first server to the sender at the time of the transmission of the electronic message from the first server to the sender.

170. (Previously amended) In a method as set forth in claim 169, the steps at the first server of:

transmitting from the first server to the sender the electronic message after the transmission of the electronic message between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

disposing of the electronic message at the first server after the transmission of the electronic message via the selected one of the SMTP and ESMTP protocols by the first server to the sender but before the authentication of the message.

171. (Previously amended) In a method as set forth in claim 170, the step at the first server of:

transmitting between the first server and the destination server the identity of the sender, the identity and address of the first server and the identity and address of the destination server and the time of the receipt of the electronic message by the first server

and the time of the transmission to the first server from the destination server of the identity of the sender, the identity and address of the first server and the identity and address of the destination server.

172. (Previously amended) In a method as set forth in claim 166, the step at the first server of:

receiving at the first server from the destination server a delivery status notification indicating the status of the delivery of the electronic message from the first server to the destination server and the time of the transmission of the delivery status notification by the destination server to the first server.

173. (Previously amended) In a method of verifying at a first server message received by the first server from a sender and transmitted by the first server to a destination server for a recipient, the steps at the first server of:

receiving at the first server from the destination server an attachment including transmissions between the first server and the destination server relating to the message from the sender, the transmissions between the first server and the destination server being provided via a protocol selected from the group consisting of an SMTP protocol and an ESMTP protocol,

transmitting from the first server to the sender the electronic message and the attachment including the transmissions between the first server and the destination server via the selected one of the SMTP protocol and the ESMTP protocol,

transmitting from the sender to the first server the electronic message and the attachment including the transmissions via the selected one of the SMTP and ESMTP protocols, and

authenticating the message on the basis of the electronic message, and the attachment including the transmission via the selected one of the SMTP and ESMTP protocols, received by the first server from the sender.

174. (Previously amended) In a method as set forth in claim 173, wherein:

the attachment includes transmissions between servers intermediate the first server and the destination server.

175. (Previously amended) In a method as set forth in claim 173, the step at the first server of:

disposing of the message from the first server when the first server transmits to the sender the electronic message and the attachment, including the transmissions between the first server and the destination server via the selected one of the SMTP protocol and the ESMTP protocol, before the authentication of the message and the attachment.

176. (Previously amended) In a method as set forth in claim 175, the steps at the first server of:

receiving at the first server from the destination server the transmission of the identity of the sender, the identity and address of the first server and the identity and

address of the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol, and

transmitting from the first server to the sender the identity of the sender, the identity and address of the first server and the identity and address of the destination server at the time of the transmission from the first server to the sender of the message and the transmission between the first server and the destination server via the protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol, the disposition of the message and the attachment occurring before the authentication of the message and the attachment.

177. (Previously amended) In a method as set forth in claim 173, the steps at the first server of

providing at the first server digital signatures of the message and of the attachment, including the transmission between the first server and the destination server relating to the message from the sender, and

transmitting from the first server to the sender the message and the attachment and the digital signatures of the message and of the attachment.

178. (Previously amended) In a method as set forth in claim 173, the steps at the first server of:

transmitting from the first server to the sender the identity of the sender, the identity and address of the first server and the identity and address of the destination

server at the time that the message and the transmissions between the first server and the destination server are transmitted from the first server to the sender,

transmitting from the sender to the first server the information transmitted from the first server to the sender, and

authenticating the message at the first server on the basis of the information previously transmitted from the first server to the sender and thereafter transmitted from the sender to the first server.

179. (Previously amended) A method of verifying delivery at a first server of an electronic message to a destination server for a recipient, including the steps at the first server of:

receiving at the first server the electronic message from a message sender for transmission of the electronic message to the destination server,

transmitting the electronic message from the first server to the destination server via a protocol selected from a group consisting of an SMTP protocol and an ESMTP protocol,

receiving at the first server the transmissions between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

transmitting from the first server to the sender the electronic message and at least a particular portion of the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols.

180. (Previously amended) A method as set forth in claim 179 wherein

the electronic message and the at least particular portion of the transmissions via the selected one of the SMTP and ESMTP protocols to the sender are provided by the sender to the first server, and wherein

the electronic message is authenticated by the first server on the basis of the electronic message and the at least particular portion of the transmissions from the sender to the first server.

181. (Previously amended) A method as set forth in claim 179 wherein

the electronic message is maintained at the first server and additionally a digital signature is provided of the electronic message at the first server and wherein

the digital signature is transmitted from the first server to the sender with the message and the at least particular portion of the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols and wherein

the digital signature is thereafter provided by the sender to the first server with the electronic message and the at least particular portion of the transmission via the selected one of the SMTP and ESMTP protocols.

182. (Previously amended) A method as set forth in claim 180 wherein

a digital signature of the electronic message and a digital signature of the electronic transmission provided via the selected one of the SMTP and ESMTP protocols

are produced at the first server and are transmitted to the sender with the electronic message and the electronic transmissions provided via the selected one of the SMTP and ESMTP protocols and wherein

the digital signatures and the electronic message and the at least particular portion of the transmission via the selected one of the SMTP and ESMTP protocols to the sender are thereafter provided by the sender to the first server and wherein

digital fingerprints are produced at the first server from the electronic message, and the digital signature of the electronic message, provided by the sender to the first server and wherein

the electronic message is authenticated at the first server by establishing an identity between the digital fingerprints produced at the first server.

183. (Previously amended) A method of verifying at a first server the delivery of an electronic message from the first server to a destination server including the steps at the server of:

receiving at the first server the electronic message from a message sender for transmission to the destination server,

transmitting the electronic message from the first server to the destination server,

receiving at the first server an electronic transmission between the first server and the destination server via a protocol selected from the group consisting of the SMTP protocol and the ESMTP protocol,

transmitting from the first server to the sender the electronic message and the electronic transmission between the first server and the destination server ~~in~~ via the selected one of the SMTP and ESMTP protocols,

receiving at the first server from the sender the electronic message and the electronic transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

authenticating the electronic message at the first server on the basis of the electronic message received by the first server from the sender and the electronic transmission received by the first server from the sender.

187. (Previously amended) A method as set forth in claim 163, including the steps of:

transmitting from the sender to the server the electronic information transmitted from the server to the sender, and

authenticating the electronic message on the basis of the information transmitted from the sender to the server.

188. (Previously amended) A method as set forth in claim 163, including the steps at the server of:

maintaining the electronic message and additionally providing a digital signature of the electronic message, and maintaining the electronic attachment and additionally providing a digital signature of the electronic attachment including the electronic

transmissions between the server and the destination server via the selected one of the SMTP and ESMTP, and

transmitting the digital signature of the electronic message, and the digital signature of the electronic attachment, from the server to the sender, at the same time that the electronic message and the electronic attachment are transmitted from the server to the sender.

189. (Previously amended) A method as set forth in claim 173, including the steps at the first server of:

maintaining the electronic message and additionally providing the digital signature of the electronic message and maintaining the electronic attachment and additionally providing the digital signature of the electronic attachment, and

transmitting from the first server to the sender the electronic message and the electronic attachment and the digital signatures of the electronic message and the electronic attachment.

190. (Currently amended) A method as set forth in claim 173, including the steps at the first server of:

maintaining the electronic message and additionally[[,]]providing a digital signature of the electronic message, and maintaining the electronic attachment including the transmission between the first server and the destination server via the selected one of

the SMTP and ESMTP protocols and additionally providing a digital signature of the electronic attachment, and

transmitting the digital signatures of the electronic message and of the electronic attachment from the first server to the sender at the same time as the transmission from the first server to the sender of the electronic message and the electronic attachment including the transmission via the selected one of the SMTP and ESMTP protocols.

191. (Previously amended) A method as set forth in claim 189, including the steps at the first server of:

transmitting from the sender to the first server the electronic message and the digital signature of the electronic message and the electronic attachment and the digital signature of the electronic attachment including the transmission between the first server and the destination server via the selected one of the SMTP and ESMTP protocols, and

authenticating the message on the basis of the digital signatures, and the electronic message and the electronic attachment, transmitted from the sender to the first server via the selected one of the SMTP and ESMTP protocols.

226. (Currently amended) In a method of authenticating a message provided by a sender and transmitted to a destination server by a second server displaced from the sender and the destination server, the steps at the second server of:

providing an electronic attachment transmitted between the second server and the destination server via a selected one of SMTP and ESMTP protocols, and

transmitting the electronic attachment from the second server to the sender.

227. (Previously amended) In a method as set forth in claim 226, the steps at the second server of:

maintaining the electronic attachment in its original state, and additionally providing a digital signature of the electronic attachment, at the second server, and

transmitting the digital signatures of the electronic attachment from the second server to the sender at the time of transmitting the electronic attachment from the second server to the sender.

228. (Previously amended) In a method as set forth in claim 227, the steps at the second server of:

receiving the electronic attachment, and the digital signature of the electronic attachment, at the second server from the sender, and

authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the digital signature of the electronic attachment, received by the second server from the sender.

229. (Previously amended) In a method as set forth in claim 227, the steps at the second server of:

receiving the electronic attachment, and the digital signature of the electronic attachment, at the second server from the sender,

providing at the second server digital fingerprints of the electronic attachment, and the digital signature of the electronic attachment, received at the second server from the sender, and

comparing the digital fingerprints to authenticate the electronic attachment.

230. (Currently amended) In a method of authenticating a message provided by a sender and transmitted to a destination server by a second server displaced from the sender and the destination server, the steps at the second server of:

providing an electronic attachment including the identity and address of the sender and the identity and address of the second server and the identity and address of the destination server, and

transmitting the electronic attachment from the second server to the sender after the transmission of the message from the second server to the destination server bit before any authentication of the message by the second server.

231. (Currently amended) In a method as set forth in claim 230 wherein

the electronic attachment transmitted from the second server to the sender includes the address and identity of intermediate stations receiving the electronic attachment in the transmission of the electronic attachment between the second server and the destination server.

232. (Previously amended) In a method as set forth in claim 230, the steps at the second server of:

maintaining the electronic attachment in its original state, and additionally providing a digital signature of the electronic attachment, at the second server and

transmitting the digital signature of the attachment from the second server to the sender, at the time of transmitting the attachment from the second server to the sender.

233. (Currently amended) In a method as set forth in claim 231, the steps at the second server of:

maintaining the electronic attachment in its original state, and additionally providing a digital signature of the attachment, at the second and

transmitting the digital signature of the electronic attachment from the second server to the sender, at the time of transmitting the electronic attachment from the second server to the sender.

234. (Currently amended) In a method as set forth in claim 232, the steps at the second server of:

receiving the electronic attachment, and the digital signature of the electronic attachment, at the second server from the sender, and

authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the digital signature of the electronic attachment, received by the second server from the sender.

235. (Currently amended) In a method as set forth in claim 233, the step at the second server of:

authenticating the electronic attachment at the second server on the basis of the electronic attachment and the digital signature of the electronic attachment, received by the second server from the sender.

236. (Previously amended) In a method as set forth in claim 232, the steps at the second server of:

receiving at the second server the attachment, and the digital signature of the attachment from the sender,

providing at the second server digital fingerprints of the attachment, and the digital signature of the attachment, received at the second server from the sender, and

comparing the digital fingerprints at the second server to authenticate the attachment.

237. (Previously amended) In a method as set forth in claim 233, the steps at the second server of:

receiving the attachment, and the digital signature of the attachment, at the second server from the sender,

providing at the second server digital fingerprints of the attachment, and of the digital signature of the attachment, received at the second server from the sender, and

comparing the digital fingerprints to authenticate the attachment.

238. (Previously amended) In a method of authenticating at a server an electronic message and the delivery of the electronic message to a destination address, the steps at the server of:

transmitting the electronic message between the server and the destination address,

receiving at the server the path of transmission of the message between the server and the destination address, the path including servers between the server and the destination address, and

transmitting to the sender the electronic message and the path of transmission of the electronic message between the server and the destination address.

239. (Previously amended) In a method as set forth in claim 238 wherein

the server does not retain the message or the path of transmission of the message between the server and the destination address after the server transmits to the sender the message and the path of transmission of the message between the server and the destination address.

240. (Previously amended) In a method as set forth in claim 238 wherein

the server receives from the sender the message and the path of transmission of the message between the server and the destination address and wherein

the server authenticates the message on the basis of the receipt by the server from the sender of the message and the path of transmission of the message between the server and the destination address.

241. (Previously amended) In a method as set forth in claim 240 wherein

the server maintains the message in its original form and additionally provides a digital signature of the message and transmits the digital signature with the message to the sender and wherein

the server receives from the sender the message and the digital signature of the message and wherein

the server provides digital fingerprints of the message and the digital signature of the message and compares the digital fingerprints to authenticate the message.

242. (Previously amended) In a method as set forth in claim 239 wherein

the server maintains the path of transmission of the message in its original form and additionally provides a digital signature of the path of transmission of the message between the server and the destination address and transmits the digital signature to the sender with the path of transmission and wherein

the server receives from the sender the path of transmission and the digital signature of the path of transmission and wherein

the server provides digital fingerprints of the path of transmission and the digital signature of the path of the transmission and compares the digital fingerprints to authenticate the message.